III. NMFS National Bycatch Plan Executive Summary

Bycatch – defined as fishery discards, retained incidental catch, and unobserved mortalities resulting from a direct encounter with fishing gear – has become a central concern of the commercial and recreational fishing industries, resource managers, scientists, and the public, both nationally and globally. Bycatch concerns stem from the apparent waste that discards represent when so many of the world's marine resources either are utilized to their full potential or are overexploited. These issues apply to fishery resources as well as to marine mammals, sea turtles, seabirds, and other components of marine ecosystems.

Congress has responded to these concerns by increasing requirements of the Marine Mammal Protection Act, the Endangered Species Act, and, most recently, the Sustainable Fisheries Act¹ to reduce or eliminate bycatch. The Magnuson-Stevens Fisheries Conservation and Management Act highlighted the need for bycatch management in fishery management plans by requiring that *conservation and management measures shall, to the extent practicable, minimize bycatch and to the extent that bycatch cannot be avoided, minimize the mortality of such bycatch.* Globally, the United Nations Food and Agriculture Organization's Code of Conduct for Responsible Fisheries, to which the United States is a signatory, also emphasizes bycatch reduction.

The national goal of the National Marine Fisheries Service's bycatch plan activities is to implement conservation and management measures for living marine resources that will minimize, to the extent practicable, bycatch and the mortality of bycatch that cannot be avoided. Inherent in this goal is the need to avoid bycatch, rather than create new ways to utilize bycatch.

Responding to these issues and increasing regulatory requirements, in 1992 the U.S. commercial fishing industries initiated a series of workshops to develop strategies to reduce bycatch and to increase the industry's and the public's understanding of bycatch issues. Their recommendations, as well as those from recreational fishing and environmental groups and the public, have prompted the National Marine Fisheries Service to prepare this plan, clearly articulating the agency's objectives, priorities, and strategies regarding bycatch. This plan includes national and regional bycatch objectives; specific recommendations concerning data collection, evaluation, and management actions necessary to attain the objectives; and an assessment if the state of knowledge about bycatch in the nation's marine fisheries. The last of these is intended to serve as a benchmark for measuring progress in bycatch reduction.

Because there are little data available on the retained incidental and unobserved mortality components of bycatch, the assessment of bycatch focuses on the availability of quantitative discard estimates from the nation's fisheries, the significance of those discards to the health of the fishery and protected stocks, and progress in addressing bycatch issues associated with each of the fisheries evaluated. Some quantitative information on finfish discards was available for about half of the species or species groups; the availability of such estimates is disproportionate among regions of the country and among fisheries within regions.

Review of bycatch reduction efforts completed or under way indicates that successful programs share common characteristics that form the basis for the following seven national objectives of this plan:

- 1. Determine the magnitude of bycatch and bycatch mortality.
- 2. Determine the population, ecosystem, and socio-economic impacts of bycatch and bycatch mortality.
- 3. Determine whether current conservation and management measures minimize bycatch to the extent practicable and, if not, select measures that will.
- 4. Implement and monitor selected bycatch management measures.
- 5. Improve communications with all stakeholders on bycatch issues.
- 6. Improve the effectiveness of partnerships with groups and individuals external to the National Marine Fisheries Service.
- 7. Coordinate NMFS activities to effectively implement this plan.

To accomplish these objectives, recommendations are made in the following six areas:

¹ The Sustainable Fisheries Act amended the Magnuson Fishery Conservation and Management Act and renamed it the Magnuson-Stevens Fishery Conservation and Management Act.

- 1. bycatch monitoring and data collection programs;
- 2. research on the population, ecosystem, and socio-economic effects of bycatch;
- 3. research to increase the selectivity of fishing gear and to increase the survival of fish and protected species that are inadvertently encountered by fishing gear;
- 4. incentive programs for fishermen to improve bycatch performance;
- 5. analysis of the implications of conservation and management measures for bycatch; and
- 6. exchange of information and development of cooperative management approaches.

Recommended actions in the six areas range from developing strategies for a long-term integrated scientific approach to the collection of biological, economic, and social data to providing information that will help define the benefits and costs associated with managing bycatch. The plan does not attempt an intraregional needs prioritization. Instead, it suggests a seven-step decision-making framework to evaluate national and regional bycatch research and management.

The development of this plan has brought into focus the fact that there is a multi-faceted and complex set of problems associated with bycatch that affects nearly all aspects of fishing operations. Regionally, the causes and implications of bycatch share some characteristics, but often differ since the status of exploitation of resources and the way fisheries are prosecuted and managed can vary substantially. Bycatch management can be accomplished with a wide variety of measures, depending on the specific characteristics of fisheries. As a result, no single solution to the "bycatch problem" exists. Rather, fishermen, managers, scientists, conservationists, and other interest groups must work together to craft a balanced approach to addressing bycatch – one that will promote the sustainability of our nation's living marine resources.